

FILM DEPOSITION METHOD

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Abstract

PROBLEM TO BE SOLVED: To deposit a deposition a metallic film, a metallic oxide film and a metallic nitride film on a deposition with high controllability regardless of the shape of the difference in level in the surface.

SOLUTION: The inside of a bubbler 5 is stored with Ta[N(C₂H₅)₂]₄6 as an organometallic raw material. Gaseous H₂ is flowed therein while warming the same by a heater 7, and the gas of the organometallic raw material is transported into a film deposition chamber 1. Then, a Ta film is deposited on a substrate 4 on a heater block 2. In the case of the deposition of a Ta oxidized film, O₂ is fed into the film deposition chamber 1 together with Ta[N(C₂H₅)₂]₄. Further, in the case of the deposition of a Ta nitrided film, NH₃ is fed into the film deposition chamber 1 together with Ta [N(C₂H₅)₂]₄.

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